

# Innovation with an impact: The Digital Africa initiative

First report: 2015 to 2017

The digital age is changing our lives – socially, economically and politically. In the realm of development cooperation, digital technologies offer a chance to tap completely new opportunities and to bring about structural change of a new quality.

As early as in 2015, the Federal Ministry for Economic Cooperation and Development (BMZ) launched its Digital Africa initiative, thus creating an innovative tool for firmly linking development cooperation and the digital world.

On behalf of the BMZ, KfW Development Bank and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) are currently implementing 22 projects under the umbrella of the initiative. The projects use digital technology to achieve development goals. The initiative has been aligned with the cornerstones for a Marshall Plan with Africa and with the BMZ's Digital Agenda, which provides the strategic framework for all digital activities under German development cooperation.

The BMZ's Digital Agenda is a tool to implement the "Digitisation in development cooperation" component of the German government's Digital Agenda. For more information, visit [https://www.bmz.de/en/issues/wirtschaft/nachhaltige\\_wirtschaftsentwicklung/ikt/digitale\\_agenda/index.html](https://www.bmz.de/en/issues/wirtschaft/nachhaltige_wirtschaftsentwicklung/ikt/digitale_agenda/index.html). The BMZ's Digital Agenda has five objectives:

- Harnessing digital innovation
- Reinforcing democratic processes
- Helping displaced persons
- Creating future-proof jobs
- Safeguarding human rights and ensuring participation

Modern information and communication technologies (ICT) can help make processes more efficient, quicker, and more cost-effective. ICT can link people who would usually not come into contact with each other. Solutions can emerge that previously seemed unthinkable. For example, blockchain technology can make processes transparent, secure and understandable for all.

## WHAT LIES AHEAD: NEW APPROACHES IN THE BMZ'S DIGITAL DEVELOPMENT POLICY

**Blockchain.** Put simply, blockchain technology is a digital register that records all transactions ever made, in a way that is resistant to data modification. In the future, this can result in a totally new quality of contracts, business transactions and public administration processes. KfW Development Bank is currently testing the TruBudget system, which it designed itself and which uses blockchain technology. TruBudget is intended to make the implementation of projects in partner countries more transparent in terms of stages in the process and financial flows. This is an effective form of tackling corruption.

**Online platform for diaspora investment.** Members of the African diaspora in Germany support their family members in their countries of origin through remittances. Currently, most of this money is used for private purposes. The BMZ wants to help foster the development of economic infrastructure in countries of origin, and to strengthen such infrastructure on a sustained basis. To that end, the Ministry, working closely with the African diaspora, is setting up a

special internet platform that would enable the diaspora to also use remittances for local productive investments that create jobs. The plan is to choose suitable micro projects with the help of an IT tool. This is intended to improve the support provided for such projects. Public funding is to be used as a lever to enhance the impact of the projects.

**Interactive information platform and data lab.** At the request of the African Union, we want to jointly set up a central communication platform for people in Africa. An interactive web portal could provide comprehensive information to citizens and facilitate direct exchange among them. To this end, publicly available information is to be gathered and processed for the platform audience. In the future, this can lend significant support to the work of African Union institutions and to the exchange of information among the people. Simultaneously, it would significantly improve the collection of statistical data in Africa, and it would open up options for big data analysis.

However, the digital transformation does not only open up vast opportunities; there are also challenges. Where new forms of work are created, some people may lose their jobs. The digital divide, for example between urban and rural people, may exacerbate existing economic and social disparity. Moreover, it is vital to ensure that data privacy and human rights are protected.

If we want to give shape to the digital future, we have to take account of these aspects. We also have to be open for new ways of thinking to arrive at solutions, for new forms of cooperation, and for new partnerships.

Thus, as we seek to foster sustainable digital development under our Digital Africa initiative, we proceed as follows: we broaden people's access to internet and phone networks, we reinforce our cooperation with young people and new partners, we strengthen digital skills and help provide education, we foster good governance, and we invest in health. Among other things, we draw on the expertise and the entrepreneurial impetus provided by the Strategic Partnership "Digital Africa."

### THE STRATEGIC PARTNERSHIP “DIGITAL AFRICA”...

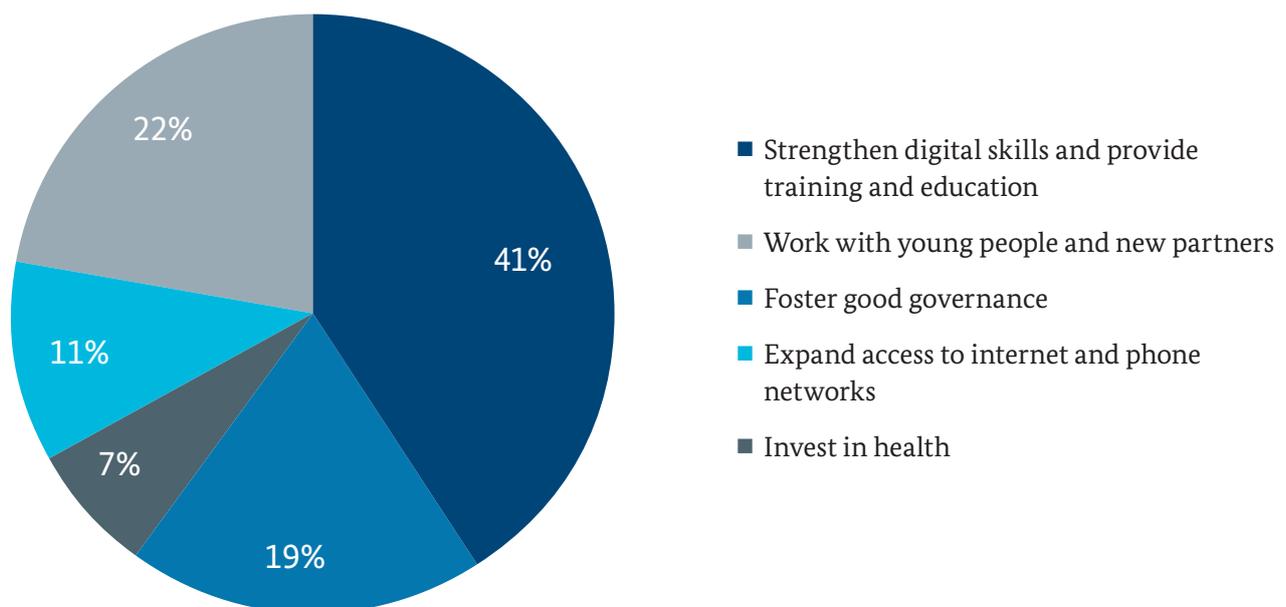
... is a network that was launched in 2015 and comprises the BMZ, enterprises, and industry associations. Its purpose is to make use of the entrepreneurial activities and the expertise of German and European companies in order to tap Africa’s digital potential and to lend sustained

impetus to development. Some 140 partners are involved in this effort, including large companies such as SAP, Siemens and KPMG as well as small and medium-sized enterprises.

We are always looking for projects that use digital technology in an innovative way. Every year, we hold a competition for the best project ideas, soliciting proposals from various BMZ units, KfW and GIZ. This participatory tool helps tap creative potential. Digital instruments and methods are used in our development cooperation across all sectors and countries, tailored to the specific needs of our partners.

The BMZ already launched a number of projects under its Digital Africa initiative, and it will continue these efforts in 2018. In some cases, ICT components are built into existing projects; in some cases, new projects are developed that use an ICT approach. Together with our partners on the ground, we explore whether and how projects can be designed with digital elements. In terms of topics and target groups, we are open for a broad range of options. Our work focuses on five key aspects for sustainable digital development:

### SHARE OF PROJECTS BY AREA



**1. Expand access to internet and phone networks:  
We enable people to get better and affordable  
access to broadband internet.**

This is a key prerequisite for closing the digital divide. At present, many regions only have 2G network internet access, if at all. Many people communicate mainly through text messaging. That is why we support, for example, the expansion of broadband and energy infrastructure in Cameroon, and we are planning to do the same in Côte d'Ivoire. This enables more people to be included in the digital world.

**2. Work with young people and new partners:  
We strengthen entrepreneurs in Africa's IT  
sector.**

By working with young people from the IT industry in Africa, we have a chance to strengthen local innovators. They are a key factor for the digital transformation. IT entrepreneurs create quality jobs that are attractive for Africa's youth. In Kenya, Nigeria and Rwanda, we are taking targeted action to enhance the ecosystem for start-ups by helping to foster a business-friendly, innovation-friendly environment.

**SUPPORT DIGITAL INNOVATORS AND BRING THEM TOGETHER WITH NEW PARTNERS:  
MAKE-IT IN AFRICA**

This two-year support program assists more than 50 selected entrepreneurs from the digital industry in East and West Africa in their businesses' early growth stages. These entrepreneurs are working on digital innovations that are particularly important for sustainable development in their countries. Based on cooperation with German and European companies, we want to help these digital innovators get in touch

with new business partners, and to give them better access to advice, training and financing programs and to a strong infrastructure. We want our program to contribute to sustainable, inclusive economic growth and to the development of stable partnerships between African and German or European enterprises.

### 3. Strengthen digital skills and provide training and education

The digital transformation requires potential users to acquire more knowledge about information and communication technologies, enabling them to participate in social life and in the world of work.

One way in which we address this is to provide e-learning, audio teaching materials and online training programs so that people can build the basic skills they need. Through such tools, we also reach people in refugee camps, and we can support young mothers, for example. Another way is our work with partners on the ground to enhance training for jobs in the digital field, so that young people will be well equipped for the national and international IT markets.

Through our new training programs, we can reach more people, opening up opportunities for displaced people, women and rural people in particular to participate in the digital world and benefit from it.

#### LIFE SKILLS AND TRAINING FOR DISPLACED PEOPLE

Many young people who have been displaced have no chance to go to school or get any training. In the Kakuma refugee camp in Kenya, we are helping young camp residents as well as young people from the region to build skills for a better future. The training programs on offer make it possible to also reach young people who are not going to school. Participants receive training in reading, writing and arithmetic, but there are also courses to build ICT and media skills. There is a special focus on women and girls.

#### SUSTAINABLE SMALL-SCALE COCOA FARMING AND FOOD PRODUCTION IN WEST AND CENTRAL AFRICA

We assist smallholders by offering training – for example on better farming and business techniques, and on how to increase their yields. We have developed easily understandable 3-D animations to convey this knowledge. Now we can make even better use of our network because we can reach tens of thousands of farmers through digital channels. Our network comprises some 700 trainers in four countries. Half of them can be reached by cellphone (messenger app). Every trainer works with about five groups of 20 to 25 farmers each. Thus, we are reaching 35,000 to 40,000 farmers, not even counting the knowledge these farmers then pass on to others. This means that our reach is much bigger than it would be without digital resources. And the positive way in which we depict the characters in our animated films helps to publicize a positive image of family farming.

#### 4. Foster good governance:

##### New ICT solutions for more transparency, participation and efficiency in the governance sector

For citizens and governments, digital solutions can be a way of making processes simpler and more transparent for all those involved. When we help introduce digital solutions, the idea is not just to capture real-world processes by digital means but to reorganize the processes at the same time. For example, in Cameroon we are helping to set up a digital system of tax administration.

We are also working with the African Union to develop ways of using feedback portals and big data analysis to improve transparency with regard to human rights violations. In all our projects, we pay close attention to data privacy and cyber security aspects.

##### INTRODUCING A DIGITAL TAX ADMINISTRATION SYSTEM IN CAMEROON

A country's main source of income is usually taxation. In Cameroon, only a fraction of all registered enterprises pay taxes. Data is transferred by memory stick, and audits are carried out in a nontransparent and inconsistent manner. The process takes a lot of time. There is no data matching between the customs authority and the tax administration, which means that there is a high risk of corruption. Now the processes are being reorganized based on adapted tax software and training for the staff, to be followed by procedure optimization measures. The additional tax revenue generated by the government will reduce the country's dependency on donor funding and make it financially more independent.

##### PROTECTING HUMAN RIGHTS IN THE DIGITAL AGE

Uganda has signed all major human rights treaties, but implementation is so not easy. The media only has limited space for reporting about human rights violations or educating the people about their rights. We are supporting the protection of human rights by fostering networking efforts, passing on knowledge and translating human rights concerns into concrete action through digital tools. We are working to introduce video verification for human rights violations, which is also a way of documenting violations. For example, it is possible to check whether videos showing human rights violations are real, and this can be documented, not least with a view to using the material in court proceedings later on.

**5. Invest in health:  
Innovations for preventing pandemics**

The health of the population is a key factor for development. Economies and societies can be set back many years if a pandemic occurs.

We are therefore developing various digital health solutions which are aimed, above all, at providing knowledge and information to relevant actors quickly and in a targeted manner. And we are supporting, for example, the introduction of general health insurance systems.

**PREVENTING PANDEMICS IN WEST AFRICA**

When the first cases of Ebola emerged in 2014, the health authorities were unable to take effective action because information was not exchanged quickly enough. Thus, the disease was able to spread quickly. We are helping the Economic Community of West African States to put in place a new digital health infrastructure.

The purpose of the system is to communicate health risks, facilitate exchange between different institutions and build the capacity of health personnel through training. A new software facilitates real-time mobile data transfer, recording and case management, for example with regard to suspected cases of Ebola.

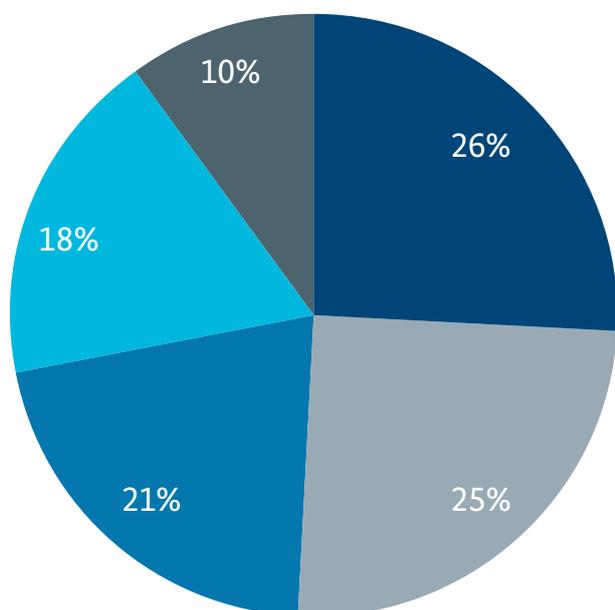
**RESOURCES FOR THE DIGITAL AFRICA INITIATIVE (AS AT AUGUST 2017)**

2015: 2 million euros

2016: 53 million euros

2017: 46 million euros

**INVESTMENT BY AREA**



- Strengthen digital skills and provide training and education
- Work with young people and new partners
- Foster good governance
- Expand access to internet and phone networks
- Invest in health

## Project overview

The following projects under the Digital Africa initiative have been started since 2015 and are currently being prepared or implemented:

No.	Implementing organization	Project name	Country or countries	Goal and activities
1	GIZ	Promotion of Economy and Employment	Rwanda	Supporting entrepreneurs through the development of new products and the promotion of networking. Developing a platform offering online classes and supporting a system of mentors and coaches.
2	GIZ	Sustainable Smallholder Agribusiness	Nigeria, Ghana, Côte d'Ivoire, Cameroon, Togo	Passing on knowledge (on topics such as good farming practices) through animated 3-D films so that farmers will be able to make a living from their yields and manage their business well
3	GIZ	Enhancement of Basic Education Programme	Malawi	Improving the quality of primary school teaching through ICT-based training for teachers on the inclusion of children with disabilities and on other topics; setting up a network of experts
4	GIZ	Tech-Entrepreneurship Initiative Make-IT Africa	Kenya, Nigeria	Strengthening entrepreneurs: supporting start-ups through a platform and through cooperation with German industry
5	GIZ	Support for pandemic prevention in the ECOWAS region	Nigeria	Preventing the spread of diseases by developing communication structures and channels with regard to health risks
6	GIZ	Life skills and training for refugees and host communities	Kenya	Helping refugees in camps attain basic education and giving them a better future through ICT training: audio teaching materials on reading, writing and arithmetic; ICT training for gifted youth
7	GIZ	Promotion of Economy and Employment	Rwanda	Helping women and people with disabilities to find jobs; reducing the shortage of skilled labor; by means of ICT-based job placement services, ICT training for women, and training for women entrepreneurs
8	GIZ	Program for Basic and Technical Education and Vocational Training	Mozambique	Improved teacher training. New ICT components will be added to the ongoing teacher training program, including components for distance learning.
9	GIZ	Community Development	Cameroon	Linking rural regions to the internet: provision of digital services by telecommunications centers
10	GIZ, DAAD (German Academic Exchange Service)	Academic Center for Digital Innovation in East Africa	East African Community (EAC) and its members	Training for skilled personnel through the introduction of a demand-oriented master program on embedded and mobile systems at a higher education institution in East Africa (in cooperation with DAAD)
11	GIZ	Support to African Governance Architecture	African Union Commission (AUC)	Applying data-based solutions (such as big and open data) to improve AUC communication

No.	Implementing organization	Project name	Country or countries	Goal and activities
12	KfW	Digitalisation of the Tax Administration	Cameroon	Increasing national tax revenue to give the country greater financial independence, by means of IT-based integration of all tax administration processes in Cameroon
13	KfW	ICT Component of the Regional Transmission Line Mozambique-Malawi	Mozambique	Using a new transmission line not only for power transmission but also for telecommunication services by installing a fiber optic cable
14	KfW	Vocational Training	Kenya	Improving training, thus increasing the number of skilled personnel by setting up a network of vocational training centers that work closely with industry, and facilitating practice-oriented, labor market-oriented training
15	GIZ, Deutsche Welle Akademie	In Touch with Youth	Niger, Nigeria, Chad, Cameroon	Fostering media literacy and giving young people in the Lake Chad region a chance to participate in social dialogue processes: interactive communication formats, training on participatory formats, e-learning (in cooperation with Deutsche Welle Akademie)
16	GIZ, Deutsche Welle Akademie, Goethe-Institut	Our World – Our Story	EAC	Improving the opportunities available to refugees in host countries and to returnees: digital storytelling projects (video clips, narrative texts) enable refugees to build digital networks, for instance with local enterprises, and to develop digital literacy skills (in cooperation with Deutsche Welle Akademie and Goethe-Institut)
17	GIZ	Digital solutions for sustainable development	Rwanda	Institution building and capacity building for the development, implementation and dissemination of digital solutions: establishment of an African center for digital solutions for Rwanda and the region
18	GIZ	Promotion of Economy and Employment	Rwanda	Introduction of e-commerce facilities through which companies in Rwanda and neighboring countries can sell their products
19	GIZ	Human Rights Protection in the Digital Age (WEEYE)	Uganda	Strengthening human rights in Uganda: innovative video verification to facilitate better protection of human rights
20	GIZ	Tech Needs Girls	Ghana	Tech training for women: expanding the ongoing vocational training project to enable more women to work in digital jobs
21	GIZ	ICT for Higher Education Programme	Senegal	Integrating an e-learning curriculum on renewable energy in the programs of several institutions of higher education. Networking between higher education institutions is supported through an interactive digital platform. A higher number of students – especially female students – can be educated.
22	GIZ	Support to "Smart Tunisia"	Tunisia	Tackling unemployment, especially youth unemployment, and increasing the competitiveness of Tunisia's IT industry: skills development and training programs in the IT sector, opportunities for offshoring and networking between players in Tunisia and in Europe